

REMARKS

In an Office Action dated November 5, 2010, claims 1-20 were rejected. Herein, claims 1, 3-15, 18, and 20 have been amended. No new matter has been added. Additionally, claims 2, 16, 17, and 19 have been cancelled without prejudice or disclaimer to the subject matter therein. Applicants respectfully request further examination and reconsideration in view of the following remarks.

Minor editorial amendments have been made to the specification. Additionally, a replacement sheet for FIG. 12 has been provided to correct a typographical error. No new matter has been added.

I. Claim/Specification Objections

On page 2 of the Office Action, the Examiner has objected to claims 1, 2, 4-8, 10, 12, 15, and 18-20 for lack of consistent spacing between words. Applicants note that this appears to be the result of justified alignment of the claims in the specification as originally filed. It is noted that the presentation of the pending claims has been set to “align text left” in order to use consistent spacing between words. Accordingly, it is respectfully requested that the objection to pending claims 1, 4-8, 10, 12, 15, 18, and 20 be withdrawn.

Additionally, Applicants note that the Examiner has made similar comments with respect to consistent spacing based on the specification as originally filed. However, it is unclear if the Examiner is actually objecting to the specification or not. In this regard, it is noted that box 9 (indicating that the specification is objected to by the Examiner) is not checked on the Office Action Summary page, and the Examiner merely urges the correction of the specification despite requiring correction of the claims. Accordingly, Applicants respectfully submit that the Examiner has not formally objected to the specification.

However, in order to expedite prosecution of the above-identified application, Applicants respectfully traverse any potential objection to the specification, and respectfully request that, if the Examiner formally objects to the specification in the next Office communication, the Examiner provide support for the objection to the specification, e.g., a section of the MPEP.

II. Claim Rejections under 35 U.S.C. 101

Claims 1-17 were rejected under 35 U.S.C. 101 for allegedly being directed to non-statutory subject matter. In particular, the Examiner has taken the position that claims 1-17 could be interpreted as directed to software per se. In view of the Examiner's comments, claim 1 has been amended to positively recite a processor and a storage unit. Accordingly, Applicants respectfully submit that independent claim 1 and pending dependent claims 3-15 are directed to statutory subject matter, and it is respectfully requested that the rejection of claims 1 and 3-15 under 35 U.S.C. 101 be withdrawn.

Claim 19 was rejected under 35 U.S.C. 101 as allegedly being directed to non-statutory subject matter. As noted above, claim 19 has been cancelled without prejudice or disclaimer to the subject matter therein. Accordingly, Applicants respectfully submit that the rejection of claim 19 under 35 U.S.C. 101 is moot.

III. Claim Rejections under 35 U.S.C. 103(a)

Claims 1-12 and 14-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Holzle et al. (US 6,240,548, hereafter "Holzle") in view of Applicants' Admitted Prior Art (hereafter "AAPA"). It is noted that independent claims 1, 18 and 20 have been amended so as to include the subject matter of cancelled claims 2 and 16. Applicants respectfully request reconsideration of the above-noted rejection in view of the following.

Claim 1 recites: a comparing unit operable to compare priority levels of (i) a bytecode set indicated by a compilation request and (ii) an instruction execution task; and a priority altering unit operable to temporarily raise a priority level of the compilation task, when the comparison shows that the priority level of the bytecode set indicated by the compilation request is higher than the priority level of the instruction execution task. Applicants respectfully submit that the above-noted features of claim 1 are not disclosed, suggested, or otherwise rendered obvious by any combination of Holzle and AAPA.

Holzle is directed to a method for performing bytecode optimization during idle periods in the execution of a computer program. In particular, Holzle teaches that during an idle period in the execution of a computer program, an uncompiled highest priority method is identified and compiled (FIGs. 2 and 3). Additionally, Applicants note that it is apparent that priority levels are assigned to each of methods to be compiled, and that Holzle merely teaches that the priority levels determine the order in which the methods are to be compiled (*See* Steps 302, 304, and 306 in FIG. 3).

In other words, Holzle merely teaches that priority levels are assigned only to methods associated with one or more bytecodes. However, Applicants note that Holzle fails to teach assigning priority levels for indicating priority among different task types, as required by claim 1. As such, Applicants note that Holzle necessarily fails to teach temporarily raising a priority level of a compilation task when the priority level of the bytecode set to be compiled is higher than the priority level of an instruction execution task, as required by claim 1.

AAPA teaches that a Just-In-Time compiler may be used to convert an invoked method into native code if it is judged that the method has not yet been compiled (Specification at Page 2). However, Applicants note that AAPA fails to teach assigning priority levels for indicating priority among different task types, as required by claim 1, and as such, AAPA necessarily fails to teach temporarily raising a priority level of a compilation task when the priority level of the bytecode set to be compiled is higher than the priority level of an instruction execution task, as required by claim 1.

In contrast to Holzle and AAPA, claim 1 requires: a comparing unit operable to compare priority levels of (i) a bytecode set indicated by a compilation request and (ii) an instruction execution task; and a priority altering unit operable to temporarily raise a priority level of the compilation task, when the comparison shows that the priority level of the bytecode set indicated by the compilation request is higher than the priority level of the instruction execution task.

In view of the above, Applicants respectfully submit that any combination of Holzle and AAPA fails to disclose, suggest, or otherwise render obvious the above-noted features of claim 1. Therefore, claim 1 is patentable over any combination of Holzle and AAPA.

Applicants note that by providing the above-noted features of claim 1, the presently claimed invention provides the advantageous effect of temporarily raising the priority level of a compilation task such that the program execution completes earlier than the program execution normally would. For example, when native code obtained as a result of compilation tasks performed by priority is executed several times, the presently claimed invention causes the program execution to complete earlier than expected.

Claims 3-12, 14, and 15 are patentable over any combination of Holzle and AAPA based at least on their dependency from claim 1.

Claims 18 and 20 recite: a comparing step of comparing priority levels of (i) a bytecode set indicated by a compilation request and (ii) an instruction execution task; and a priority altering step of temporarily raising a priority level of the compilation task, when the comparison shows that the priority level of the bytecode set indicated by the compilation request is higher than the priority level of the instruction execution task. Applicants respectfully submit that the above-noted features of claims 18 and 20 are not disclosed, suggested, or otherwise rendered obvious for reasons similar to those discussed above with respect to claim 1. Therefore, claims 18 and 20 are patentable over any combination of Holzle and AAPA.

Claim 13 was rejected under 35 U.S.C. 103(a) as being unpatentable over the Holzle in view of AAPA, and further in view of Shaylor (US 2002/0104076). Applicants respectfully submit that Shaylor fails to provide disclosure that would obviate the above-mentioned deficiencies of Holzle and AAPA. Accordingly, claim 13 is patentable over any combination of Holzle, AAPA, and Shaylor based at least on its dependency from claim 1.

IV. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully submit that claims 1, 3-15, 18, and 20 are clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner believes that there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Shigenori DOI et al.

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